In The Drawings

Applicant submits herewith a sketch showing proposed changes to Figs. 2 and 3 with changes shown in red in accordance with MPEP 608.02(v).

In The Claims

Please cancel claim 1.

Please amend the remaining claims to read as follows:

2. (Amended) A measurement system comprising:

a first log amp;

a second log amp; and

a differencing circuit coupled to the first and second log amps, wherein the differencing circuit is arranged to continuously process outputs from the first and second log amps.

3. (Amended) A measurement system according to claim 2 wherein:

the first log amp has a first logarithmic output coupled to a first input to the differencing circuit; and

the second log amp has a second logarithmic output coupled to a second input to the differencing circuit.

4. (Amended) A measurement system comprising:

a first log amp;

a second log amp; and

a differencing circuit coupled to the first and second log amps, wherein the differencing circuit comprises a summing node.

5. A measurement system according to claim 2 further comprising an output interface circuit coupled to the differencing circuit.

6. (Amended) A measurement system comprising:

a first log amp;

a second log amp;

a differencing circuit coupled to the first and second log amps; and

a phase detector core coupled to the first and second log amps.

7. A measurement system according to claim 6 wherein:

the first log amp has a first limiting output coupled to a first input of the phase detector core; and

the second log amp has a second limiting output coupled to a second input of the phase detector core.

8. A measurement system according to claim 7 wherein the detector core comprises a multiplier.

9. A measurement system according to claim 6 further comprising an output interface circuit coupled to the phase detector core.

10. (Amended) A measurement system comprising:

a first log amp; and

a second log amp;

wherein the first and second log amps are co-integrated on a substrate.

11. A measurement system according to claim 10 wherein the first and second log amps are arranged symmetrically about a center line.

12. A measurement system circuit according to claim 10 wherein the substrate is mounted in a package.

13. A measurement system according to claim 12 further comprising:

a first parasitic network coupled to the first log amp; and

a second parasitic network coupled to the second log amp;

wherein the first and second parasitic networks have similar frequency responses.

14. (Amended) A measurement system comprising:

a first log amp;

a second log amp;

a differencing circuit coupled to the first and second log amps; and

a third log amp coupled to the differencing circuit.

15. (Amended) A measurement system comprising:

a first log amp;

a second log amp;

a differencing circuit coupled to the first and second log amps; and

one or more additional log amps coupled to the differencing circuit.

16. A measurement system comprising:

a first log amp having a first limiting output;

a second log amp having a second limiting output; and

a phase detector core coupled to the first and second log amps to receive the first and second limiting outputs.

17. A measurement system according to claim 16 wherein the phase detector core comprises a multiplier.

18. A measurement system according to claim 16 wherein the first and second log amps are co-integrated on a substrate.

19. An integrated circuit comprising two or more log amps.

20. An integrated circuit according to claim 19 further comprising a differencing circuit coupled to the two or more log amps.

21. An integrated circuit according to claim 19 further comprising a phase detector core coupled to the two or more log amps.

22. (Amended) A method comprising:

logarithmically amplifying a first input signal, thereby generating a first output signal;

logarithmically amplifying a second input signal, thereby generating a second output signal; and

differentially and continuously processing the first and second output signals.

23. A method according to claim 22 wherein:

the first and second output signals are logarithmic output signals; and

differentially processing the first and second output signals comprises differencing the first and second output signals.

allow 24. (Amended) A method comprising:

logarithmically amplifying a first input signal, thereby generating a first output signal;

logarithmically amplifying a second input signal, thereby generating a second output signal; and

differentially processing the first and second output signals

wherein:

the first and second output signals are limiting output signals; and

differentially processing the first and second output signals comprises multiplying the first and second output signals.

cont. a2

25. (Amended) A method comprising:

logarithmically amplifying a first input signal, thereby generating a first output signal;

logarithmically amplifying a second input signal, thereby generating a second output signal;

differentially processing the first and second output signals;

allowed utilizing a signal to be examined as the first input signal; and

utilizing a reference signal as the second input signal.

26. A method according to claim 25 wherein the reference signal has the same waveform as the signal to be examined.

allow 27. (Amended) A method comprising:

logarithmically amplifying a first input signal, thereby generating a first output signal;

logarithmically amplifying a second input signal, thereby generating a second output signal;

differentially processing the first and second output signals;

utilizing a modulated signal for the first input signal; and

utilizing a modulation signal for the second input signal.

Please add the following new claims:

a3 28. (New) A measurement system according to claim 2 further comprising a power amplifier having an input coupled to an input of the first log amp and an output coupled to an input of the second log amp.

29. (New) A measurement system according to claim 4 wherein the log amps have current outputs.